Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-23. (Cancelled)

24. (Previously Presented) A simple chemical vapor deposition method for forming an aluminide coating containing at least two different extrinsic metals on a jet engine component, comprising:

coupling a single port of a receptacle in fluid communication with a main reaction chamber;

heating the receptacle to form a first vapor phase reactant including a first extrinsic metal that is transported without assistance of a separate flow of a carrier gas from the receptacle to the main reaction chamber;

generating a second vapor phase reactant including a second extrinsic metal inside the main reaction chamber, the second extrinsic metal differing in composition from the first extrinsic metal;

heating the jet engine component; and

contacting the first and second vapor phase reactants with the heated jet engine component to form the aluminide layer including the first and the second extrinsic metals, wherein the aluminide layer is capable of forming a complex oxide when heated in an oxidizing environment.

25. (Previously Presented) The simple chemical vapor deposition method of claim 24 wherein the first extrinsic metal of the first vapor phase reactant originates from a metal-halogen Lewis acid.

26. (Previously Presented) The simple chemical vapor deposition method of claim 25 wherein the second extrinsic metal is aluminum and the first extrinsic metal is selected from the group consisting of chromium, cobalt, hafnium, iridium, niobium, palladium, platinum, rhodium, silicon, titanium, yttrium, and zirconium.

27. (Previously Presented) The simple chemical vapor deposition method of claim 26 wherein the metal-halogen Lewis acid is provided as a hydrated or anhydrous crystalline form.

28. (Previously Presented) The simple chemical vapor deposition method of claim 25 wherein the metal-halogen Lewis acid is selected from the group consisting of $AlCl_3$, $CoCl_4$, $CrCl_3$, CrF_3, $FeCl_3$, $HfCl_3$, $IrCl_3$, $PtCl_4$, $RhCl_3$, $RuCl_3$, $TiCl_4$, YCl_3, $ZrCl_4$, and ZrF_4.

29. (Previously Presented) The simple chemical vapor deposition method of claim 24 wherein the jet engine component is fabricated from a superalloy.

30. (Previously Presented) The simple chemical vapor deposition method of claim 24 wherein the second extrinsic metal constitutes less than 10 wt.% of the aluminide layer.

31. (Cancelled)

32. (Withdrawn) A method of retrofitting a receptacle to an existing simple chemical vapor deposition reaction chamber to permit coating a jet engine component with at least two different metals, comprising:

positioning a receptacle outside an existing simple chemical vapor deposition reaction chamber;

sealingly coupling one of a pair of normally open apertures of a conduit for fluid communication with a single receptacle port of the receptacle to define a closed communication path; and

sealingly coupling another of the pair of normally open apertures for fluid communication with the simple chemical vapor deposition reaction chamber such that the simple chemical vapor deposition reaction chamber and receptacle constitute a closed space sharing a common deposition environment.

33. (Withdrawn) The retrofitting method of claim 32 wherein positioning the receptacle further comprises mechanically supporting the receptacle with the reaction chamber.

34. (Previously Presented) A simple chemical vapor deposition process comprising:

placing a metal component in a deposition environment in a main reaction chamber;

transporting a first vapor phase reactant containing a first extrinsic metal to the main reaction chamber via a closed pathway from an external receptacle and without assistance of a separate flow of a carrier gas;

providing a second source of a second extrinsic metal independent of the metal component in the main reaction chamber; and

while the metal component is in the main reaction chamber, exposing the metal component, the first vapor phase reactant, and the second source to the deposition environment in the main reaction chamber for a time sufficient to form an aluminide layer at the metal component including the first and second extrinsic metals.

35. (Previously Presented) The simple chemical vapor deposition process of claim 34 wherein providing the second source further comprises:

placing an activator material and a donor material containing the second extrinsic metal into the main reaction chamber; and

reacting the activator material with the donor material to provide the second source.

36. (Previously Presented) The simple chemical vapor deposition process of claim 35 wherein reacting the activator material further comprises:

heating the activator material sufficiently to cause migration of the activator material to the donor material and to cause a chemical reaction releasing the second source.

37. (Previously Presented) The simple chemical vapor deposition process of claim 34 wherein providing the second source further comprises:

transporting a vapor containing the second source to the main reaction chamber in a flow of carrier gas.

38-43. (Cancelled)

44. (Previously Presented) A simple chemical vapor deposition method for forming a coating on a jet engine component, comprising:

placing the jet engine component in a deposition environment in a main reaction chamber adapted to hold the jet engine component on which the coating is to be formed;

heating the jet engine component;

heating a receptacle external to the main reaction chamber to form a first vapor phase reactant;

transporting the first vapor phase reactant to the deposition environment inside the main reaction chamber via a closed first communication path coupling the receptacle with the main reaction chamber while the heated jet engine component is in the main reaction chamber and without assistance of a separate flow of a carrier gas;

providing a second vapor phase reactant including a second extrinsic metal independent of the jet engine component in the deposition environment inside the main reaction chamber; and

forming the coating including the first extrinsic metal on the heated jet engine component by cooperation between the first vapor phase reactant and the second vapor phase reactant.

45. (Previously Presented) The simple chemical vapor deposition method of claim 44 wherein the second vapor phase reactant includes a second extrinsic metal differing in composition from the first extrinsic metal.

46. (Previously Presented) The simple chemical vapor deposition method of claim 44 wherein forming the coating further comprises:

contacting the first and second vapor phase reactants with the heated jet engine component for a time sufficient to form the coating including the first and second extrinsic metals on the jet engine component.

47. (Previously Presented) The simple chemical vapor deposition method of claim 44 further comprising:

coupling a single port of the receptacle in fluid communication with the main reaction chamber, the receptacle being sealed but for the first communication path that is otherwise closed.

48. (Previously Presented) A simple chemical vapor deposition method for forming a coating on a jet engine component positioned inside a deposition environment of a main reaction chamber, the method comprising:

placing an amount of a metal-halogen Lewis acid material in a solid phase into a receptacle external to the main reaction chamber;

heating the metal-halogen Lewis acid held in the receptacle to form a first vapor phase reactant including a first extrinsic metal;

transporting the first vapor phase reactant from the receptacle to the deposition environment inside the main reaction chamber without assistance of a separate flow of a carrier gas from the receptacle to the main reaction chamber; and

contacting the first vapor phase reactant with the jet engine component to form the coating including the first extrinsic metal.

49. (Previously Presented) The simple chemical vapor deposition method of claim 48 wherein the metal-halogen Lewis acid is provided as a hydrated or anhydrous crystalline form.

50. (Previously Presented) The simple chemical vapor deposition method of claim 48 wherein the metal-halogen Lewis acid is selected from the group consisting of $AlCl_3$, $CoCl_4$, $CrCl_3$, CrF_3, $FeCl_3$, $HfCl_3$, $IrCl_3$, $PtCl_4$, $RhCl_3$, $RuCl_3$, $TiCl_4$, YCl_3, $ZrCl_4$, and ZrF_4.

51. (Previously Presented) The simple chemical vapor deposition method of claim 48 wherein the jet engine component is fabricated from a superalloy.

52. (Previously Presented) The simple chemical vapor deposition method of claim 48 wherein the coating is an aluminide layer, and further comprising:

generating a second vapor phase reactant including a second extrinsic metal inside the deposition environment, the second extrinsic metal differing in composition from the first extrinsic metal;

heating the jet engine component; and

contacting the first and second vapor phase reactants with the heated jet engine component to form the aluminide layer including the first and the second extrinsic metals.

53. (Previously Presented) The simple chemical vapor deposition method of claim 52 wherein the second vapor phase reactant is formed independent of the jet engine component in the deposition environment inside the main reaction chamber.

54. (Previously Presented) The simple chemical vapor deposition method of claim 52 wherein the second extrinsic metal is aluminum and the first extrinsic metal is selected from the group consisting of chromium, cobalt, hafnium, iridium, niobium, palladium, platinum, rhodium, silicon, titanium, yttrium, and zirconium.

55. (Previously Presented) The simple chemical vapor deposition method of claim 48 wherein heating the metal-halogen Lewis acid further comprises:

transforming the metal-halogen Lewis acid material from the solid phase through a liquid phase into a vapor phase to form the first vapor phase reactant.

56. (Previously Presented) The simple chemical vapor deposition method of claim 55 wherein the solid phase of the metal-halogen Lewis acid material is in a hydrated or anhydrous crystalline form.

57. (Previously Presented) The simple chemical vapor deposition method of claim 55 wherein transforming the metal-halogen Lewis acid material further comprises:

heating the receptacle to a first temperature effective to convert from the metal-halogen Lewis acid material from the solid phase to the liquid phase; and

continuing to heat the receptacle to a second temperature effective to convert from the liquid phase to the vapor phase of the first vapor phase reactant.

58. (New) A simple chemical vapor deposition process comprising:

placing a metal component in a deposition environment;

generating a first vapor phase reactant containing a first extrinsic metal by heating a metal-halogen Lewis acid; and

transporting the first vapor phase reactant to the metal component to deposit the first extrinsic metal on the metal component.

59. (New) The simple chemical vapor deposition process of claim 58 wherein the metal-halogen Lewis acid includes Si and Br.

60. (New) The simple chemical vapor deposition process of claim 58 further comprising:

generating a second vapor phase reactant containing a second extrinsic metal, the second extrinsic metal differing in composition from the first extrinsic metal; and

transporting the second vapor phase reactant to the metal component to deposit on the first extrinsic metal.

61. (New) The simple chemical vapor deposition process of claim 60 further comprising:

heating the metal component after the first vapor phase reactant is transported to the metal component.

62. (New) The simple chemical vapor deposition process of claim 60 further comprising:

heating the metal component while the first vapor phase reactant is transported to the metal component.